

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 18 MAR 2005

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| Applicant's or agent's file reference SMC 60564/WO | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416) | |
| International application No. PCT/GB 03/05465 | International filing date (<i>day/month/year</i>) 16.12.2003 | Priority date (<i>day/month/year</i>) 04.01.2003 |
| International Patent Classification (IPC) or both national classification and IPC C08G18/08 | | |
| Applicant NEORESINS INC. et al. | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

I ☒ Basis of the opinion

II ☐ Priority

III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

IV ☐ Lack of unity of invention

V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

VI ☐ Certain documents cited

VII ☐ Certain defects in the international application

VIII ☐ Certain observations on the international application

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| Date of submission of the demand 10.05.2004 | Date of completion of this report 17.03.2005 |
| Name and mailing address of the International preliminary examining authority: <div style="display: flex; align-items: center;"> <div> European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 </div> </div> | Authorized Officer Lanz, S Telephone No. +49 89 2399-7869 |



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB 03/05465

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-18 as originally filed

Claims, Numbers

1-12 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

| | | |
|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 1-12 |
| | No: Claims | |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-12 |
| Industrial applicability (IA) | Yes: Claims | 1-12 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Article 6 PCT

Independent claim 1 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The claim attempts to define the subject-matter by the 60° gloss of ≤ 40 in terms of the result to be achieved, which merely amounts to a statement of the underlying problem, without providing the technical features necessary for achieving this result.

2. Novelty

Documents D1 and D2 do not disclose an aqueous coating composition having a 60° gloss of ≤ 40 upon drying.

Therefore the subject-matter of claims 1-12 of the present application is considered to be novel over the subject-matter of documents D1 and D2.

3. Inventive Step

Polyurethane dispersion 1 of document D1 (see page 11, lines 1-25) discloses the preparation of an aqueous dispersion prepared from a prepolymer (corresponds to component (A) of the present application) and hydrazine/ethylene diamine as chain extender (corresponds to (B)). The prepolymer is obtained from polytetrahydrofuran (corresponds to (v)), a polyester with oxidatively drying groups (corresponds to (iv)), dimethylolpropionic acid in an amount of 0.2% (1.26/(1.26+158+116+22+121+102))(corresponds to (ii)), hexane diol (corresponds to (vi)) and Desmodur W/Desmodur I (corresponds to (i)).

Example 1 of document D2 discloses the preparation of an aqueous polyurethane

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dispersion from a prepolymer and ethylene diamine/adipic acid dihydrazide as chain extender. The prepolymer is formed from a polyester polyol (corresponds to (v)), partially dehydrated castor oil (corresponds to (iv)), dimethylolpropionic acid in an amount of 6% $(21.7/(21.7+76.8+78.6+7.57+160.7))$ (corresponds to (ii)) and dicyclohexylmethane diisocyanate (corresponds to (i)).

Therefore the subject-matter of the present application differs from the subject-matter of documents D1 and D2 by the fact that the coating obtained from the aqueous dispersion upon drying has a 60° gloss of ≤ 40 .

However, the problem of the present application was to provide an aqueous coating compositions having low gloss upon drying.

It is obvious for the person skilled in the art to provide an aqueous coating composition having low gloss upon drying by using an aqueous coating composition having a 60° gloss of ≤ 40 upon drying.

Therefore the subject-matter of claims 1-12 of the present application does not involve an inventive step.